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27045	7590	08/22/2007	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			HANNON, CHRISTIAN A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

This action is response to applicant's response filed on 12/7/2006. Claims 1-4, 6-15 & 17-19 are now pending in the present application. **This action is made final.**

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6-15 & 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arroyo et al (US 2003/0221024), hereinafter Arroyo, in view of Jacobson (US 7,020,598).

Regarding claim 1, Arroyo teaches a platform system comprising a software services component comprising at least one functional software unit (Figure 2, Item 40; Arroyo), a hardware component comprising at least one hardware unit associated with the at least one functional software unit (Page 2, [0023]; Arroyo) and a software interface component comprising at least one software interface (Page 2, [0023]), or middleware API, the software interface component being adapted to isolate the hardware component and software services component from user applications (Page 2, [0023]; Figure 2, Items 40, 60, 110, 130; Arroyo). However Arroyo fails to teach the software interface component being adapted to provide access by a mobile terminal application software for testing the mobile terminal to the software services component

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and the hardware component during testing of a mobile terminal and during a lifecycle of the mobile terminal, and wherein a code space occupied by the mobile terminal application software may be overwritten after the testing of the mobile terminal has been completed. Jacobson teaches a software interface component being adapted to provide access by a mobile terminal application software for testing the mobile terminal to the software services component and the hardware component during testing of a mobile terminal and during a lifecycle of the mobile terminal (Column 12, Lines 44-53; Column 15; Lines 1-14; Jacobson), and wherein a code space occupied by the mobile terminal application software may be overwritten after the testing of the mobile terminal has been completed (Column 13, Lines 4-14; Jacobson). Therefore it would have been obvious to combine the teachings of Arroyo with those of Jacobson in order to provide for a means in Jacobson to restore or upgrade factory settings or other special requests that any manufacturer would want to add.

With regard to claim 2, Arroyo and Jacobson teach the platform system of claim 1, wherein the mobile terminal application software comprises software for testing the mobile during production of the mobile terminal (Column 1, Lines 5-11; Jacobson). It is noted by the examiner that the teachings of both references can be tested during production.

Regarding claim 3, Arroyo and Jacobson teach the platform system of claim 1, wherein the mobile terminal application software comprises software for testing the mobile terminal during servicing of the mobile terminal during the lifecycle of the mobile terminal (Column 1, Lines 5-11; Jacobson).

With respect to claim 4, Arroyo and Jacobson teach the platform system of claim 1, wherein the software interface component comprises a middleware services layer (Figure 2, Item 60; Arroyo).

Regarding claim 6, Arroyo and Jacobson teach the platform system of claim 2, wherein the mobile terminal application software comprises software for use during servicing of the mobile terminal during the lifecycle of the mobile terminal (Column 1, Lines 5-11; Jacobson).

With regard to claim 7, Arroyo and Jacobson teach the platform system of claim 6, further comprising the mobile terminal application software (Figure 2, Item 40; Arroyo).

In regard to claim 8, Arroyo and Jacobson teach the platform system of claim 1, further comprising the mobile terminal application software, wherein the mobile terminal application software comprises software for testing the mobile terminal during servicing of the mobile terminal during the lifecycle of the mobile terminal (Column 15, Lines 1-13; Jacobson).

Regarding claim 9, Arroyo and Jacobson teach the platform system of claim 1, wherein the hardware component interfaces with a factory test system, the factory test system being adapted to control the software for testing the mobile terminal during production of the mobile terminal (Column 2, Lines 17-29; Jacobson). It is noted by the examiner that an obvious advantage that becomes apparent through remote testing facilities is that a mass group of phones at production may be tested using the same system, thereby Jacobson teaches the claim limitation.

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With respect to claim 10, Arroyo and Jacobson teach the platform system of claim 1, wherein the hardware component interfaces with a factory test system, the factory test system being adapted to control the software for testing the mobile terminal during servicing of the mobile terminal during the lifecycle of the mobile terminal (Column 2, Lines 17-29; Jacobson).

Regarding claim 11, Arroyo and Jacobson teach the platform system of claim 1, wherein the mobile terminal is for use in a wireless telecommunications system (Column 1, Lines 45-50; Jacobson).

In regards to claim 12, Arroyo teaches a method of testing a mobile terminal providing in the mobile terminal a software interface component having at least one software interface (Figure 2, Item 60; Arroyo), the software interface component adapted to isolate software service components and hardware components of the mobile terminal from user application software (Page 2, [0023]; Arroyo). However Arroyo fails to explicitly teach interoperably connecting the mobile terminal to a test system, providing via the interface component of access by a mobile terminal test application software to the software and hardware of the mobile terminal during testing of the mobile terminal, controlling by the test system, the mobile terminal test application software via an external interface during the testing of the mobile terminal, retaining the software interface component the hardware and the software on the mobile terminal and deleting the mobile terminal test application software from the mobile terminal. Jacobson teaches interoperably connecting the mobile terminal to a test system (Column 2, Lines 17-29; Jacobson), providing via an interface component access by a

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mobile terminal test application software to software and hardware of a mobile terminal during testing of the mobile terminal (Column 12, Lines 44-53; Column 15; Lines 1-14; Jacobson), controlling by the test system, the mobile terminal test application software via an external interface during the testing of the mobile terminal (Column 2, Lines 17-29; Jacobson) retaining the software interface component the hardware and the software on the mobile terminal and deleting the mobile terminal test application software from the mobile terminal (Column 12, Lines 43-67; Column 13, Lines 1-14; Jacobson). Therefore it would have been obvious to combine the teachings of Arroyo with those of Jacobson in order to provide for a means in Jacobson to restore or upgrade factory settings remotely or other special requests that any manufacturer would want to add from a remote location.

With regard to claim 13, Arroyo and Jacobson teach the method of claim 12, further comprising the step of using the mobile terminal in a wireless communication system (Column 1, Lines 45-50; Jacobson).

Regarding claim 14, Arroyo and Jacobson teach the method of claim 12 further comprising deleting the mobile terminal test application software from the mobile terminal after the testing of the mobile terminal has been completed (Column 14, Lines 58-61; Jacobson).

With regard to claim 15, Arroyo and Jacobson teach the method of claim 12 further comprising the step of deleting the mobile terminal test application software from the mobile terminal after it has been provided to a customer (Column 14, Lines 58-61; Jacobson).

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Regarding claim 17, Arroyo and Jacobson teach the method of claim 15, further comprising adding application software in a code space previously occupied at least in part by the deleted mobile terminal test application software (Column 14, Lines 58-67; Jacobson). It is obvious and well known in the art that given a limited amount of memory, a computer system will reclaim memory that is no longer in use, that which was 'deleted', for new applications or data.

With regard to claim 18, Arroyo and Jacobson teach the method of claim 12, wherein the mobile terminal application software comprises software for testing the mobile terminal during production of the mobile terminal. (Column 2, Lines 17-29; Jacobson). It is noted by the examiner that an obvious advantage that becomes apparent through remote testing facilities is that a mass group of phones at production may be tested using the same system, thereby Jacobson teaches the claim limitation.

With regard to claim 19, Arroyo and Jacobson teach the method of claim 12, wherein the mobile terminal application software comprises software for testing the mobile terminal during servicing of the mobile terminal during the lifecycle of the mobile terminal (Column 1, Lines 5-11; Jacobson).

Response to Arguments

3. Applicant's arguments filed 12/7/2006 have been fully considered but they are not persuasive.

Regarding claim 1, the applicant contends that Arroyo does not discuss the functionality of middleware element 60 and therefore the examiners citation of figure 2

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of Arroyo to read on "a software services component comprising at least one functional software unit." It is obvious to one of ordinary skill in the art that functional software is also known as an application when viewed in the context of the prior art disclosure, applicant's contention of the middleware at this point is irrelevant. Applicant then contends that Arroyo does not disclose whether or how items 40 or 60 are associated with the hardware of items 140, 150, 160, 170, 180 and 190 therein. In fact Arroyo teaches that the platform 70 (which houses the functional software or applications item 40 of figure 2 Arroyo) is associated with hardware through various application program interfaces (APIs). The hardware units cited by the examiner are any of infrared 140, Bluetooth 150 memory 160, keyboard 170, display 180, or other 180 (Page 2, [0023]; Arroyo). Next the applicant contends that the examiner cited portion of Arroyo fails to teach a software interface component comprising at least one software interface, however the cited passage does teach an API, Arroyo teaches in fact that a number of APIs within the platform 70 (Page 2, [0023]; Arroyo). The applicant then contends that the API taught by Arroyo is not adapted to provide access to a mobile terminal application software for testing the mobile terminal, when in fact the examiner has combined the teaching of Jacobsen's functional unit of an API in order to load testing software onto a terminal to effect change on hardware and software of the terminal. It is maintained by the examiner that Arroyo and Jacobson do not need to explicitly teach which software interface component that facilitates access to the DUT; Jacobsen provides the teaching that these components can in fact be accessed for diagnostic control purposes, and therefore the teachings render the claim obvious, since the

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applicant has failed to demonstrate the criticality of these events, having these techniques in front of one of skill in the art the combination of the teachings provides a known result. Further the applicant contends that "it is not technically possible to combine Arroyo and Jacobson" (Applicant Remarks Page 7), the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Next the applicant contends that the software interface component is adapted to isolate the hardware from the software so that access for testing can be performed, the examiner wishes to distinguish that the testing aspects are taught by Jacobson not Arroyo in the rejection, and that Arroyo teaches user applications at level 20 of figure 2, which shows the isolation of the APIs 80, 90, 100 & 340 in figure 2, with the HAL 110 of figure 2 from the user interface or user applications. When viewed in light of the testing aspects of Jacobson the limitation of the claim is rendered obvious in light of Arroyos teachings. Finally the applicant contends that Jacobson fails to teach a code space occupied by the mobile terminal application software may be overwritten after the testing of the mobile terminal has been completed (Page 8, Applicant Remarks), in fact Jacobson teaches replacing a software driver, the term 'replacing' insinuates the overwriting the defective driver with the new driver to correct the problem, this of course obviously reading on the applicants limitation.

Regarding claim 12, the applicant contends that Arroyo does not discuss the functionality of middleware element 60 and therefore the examiners citation of figure 2 of Arroyo to read on "a software services component comprising at least one functional software unit." It is obvious to one of ordinary skill in the art that functional software is also known as an application when viewed in the context of the prior art disclosure, applicant's contention of the middleware at this point is irrelevant. Further the examiner has not equated the two as synonyms but merely as both being able to broadly read on the applicant's vague limitation of a 'software interface component.' The applicant then contends that Arroyo fails to teach isolation. Arroyo teaches user applications at level 20 of figure 2, which shows the isolation of the APIs 80, 90, 100 & 340 in figure 2, with the HAL 110 of figure 2 from the user interface or user applications. When viewed in light of the teaching aspects of Jacobson the limitation of the claim is rendered obvious in light of Arroyos teachings. That is, when the user application software is defined as the user interface the software interface are the APIs of Arroyo. It is maintained by the examiner that Arroyo and Jacobson do not need to explicitly teach which software interface component that facilitates access to the DUT; Jacobsen provides the teaching that these components can in fact be accessed for diagnostic control purposes, and therefore the teachings render the claim obvious, since the applicant has failed to demonstrate the criticality of these events, having these techniques in front of one of skill in the art the combination of the teachings provides a known result. Further the applicant contends that "it is not technically possible to combine Arroyo and Jacobson" (Applicant Remarks Page 7), the test for obviousness is not whether the features of a

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secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Finally the applicant contends that Jacobson fails to teach retaining the software interface component, the hardware, and the software on the mobile terminal and deleting the mobile terminal test application software from the mobile terminal (Page 9, Applicant Remarks), in fact Jacobson teaches remote diagnosis so obviously the remote terminal would retain the core components of the terminal, that is those components that are integral to the functioning of the device, the software interface, the hardware and the software. The examiner has construed the faulty software as 'test' software and Jacobson in fact teaches replacing of the test or faulty software; the term 'replacing' insinuates the overwriting the defective driver with the new driver to correct the problem, this of course obviously reading on the applicants limitation.

In light of the above arguments the claims above and their respective dependents remain rejected under U.S.C. 103(a).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian A. Hannon whose telephone number is (571) 272-7385. The examiner can normally be reached on Mon. - Fri. 8:00 AM - 4:30 PM.

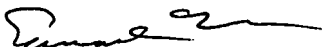
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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C. A. Hannon
August 14, 2007



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